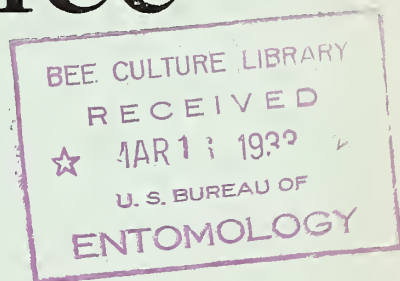


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Extension Service Review



VOL. 4, No. 2

MARCH, 1933



USING THE FIELD MEETING TO PRESENT EXTENSION FACTS

ISSUED BIMONTHLY BY THE EXTENSION SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON, D. C.



In This Issue

EFFECTIVE land utilization requires that the public encourage the individual to use land wisely as definitely as it requires that the individual make concessions to the public interest. This is the underlying principle on which any satisfactory land-utilization policy must be based, says President F. D. Farrell of Kansas State Agricultural College, speaking as chairman for the National Land Use Planning Committee. "The development of a feasible policy and its application," he says further, "must result from the compelling pressure of events and from persistent vigorous study and effort by well-informed public-spirited citizens."



UTAH STRESSES the Health H. Every 4-H club member, no matter what the project, is required to follow out a definite health program. Through impressing Utah's boys and girls with the thought that they have a responsibility to develop a strong physique, Director William Peterson believes that greater interest is developed both on their part and on that of their parents in the care of the home, the preservation of food, adherence to sanitation, and other measures to maintain health.

OF WHAT value is the seed-improvement program to the farmer? How many States have seed-improvement associations? Are there sufficient supplies of certified seed to be a real factor in meeting the requirements of growers? These are some of the questions which O. S. Fisher answers in his discussion of nation-wide results of seed-improvement effort by county extension agents and agronomy specialists.

WHEN 41 per cent of the 2,000,000-bushel crop of wheat in Brown County, S. Dak., graded smutty at

the terminal market in 1928, causing a loss to growers of \$50,000, something had to be done about it. The growers of the county together with W. E. Dittmer, county agent, and Ralph Johnston, extension agronomist, got busy on an intensive crop-improvement program. In 1932, there were 372,000 bushels less of smutty wheat marketed than in 1931, and on this account it is estimated that Brown County growers received \$76,500 more for the crop than in the previous year.

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On The Calendar

Annual Extension Conference, Ithaca, N. Y., March 27-29.
Farm and Home Week, Orono, Me., March 27-30.
National Home Economics Association Meeting, Milwaukee, Wis., June 26-30.

NEARLY 300,000 livestock producers are marketing their cattle, hogs, and sheep through the National Live Stock Marketing Association and its subsidiaries, and the value of this livestock exceeds \$100,000,000 annually. President Charles A. Ewing of the National Association points out that the growth in volume of business handled by his association was 20 per cent over that of the previous year.



RADIO is a direct route from the college to the home. This is the way Claribel Nye, State leader of home economics extension of Oregon, pictures radio. "The facilities of radio for direct teaching," says Miss Nye, "are a challenge to those of us in the field of education who seek to aid people in making changes in their thinking, feeling, and doing. We aim to have our radio efforts support and enrich our county extension programs and to stimulate the thinking of those home makers who for lack of choice or opportunity are not formally enrolled in extension projects."

W. W. CHARTERS of Ohio State University sees a lesson for us in the important part research plays in the effective handling of industries. "This period of depression," he says, "should produce a new agency in extension education—a research agency dealing exclusively with the investigation and improvement of extension objectives, plans, policies, technics, and administrative procedure."

THE EXTENSION SERVICE REVIEW is issued bimonthly by the EXTENSION SERVICE of the United States Department of Agriculture, Washington, D. C. The matter contained in the REVIEW is published by direction of the Secretary of Agriculture as administrative information required for the proper transaction of the public business. The REVIEW seeks to supply to workers and cooperators of the Department of Agriculture engaged in extension activities, information of especial help to them in the performance of their duties, and it is issued to them free by law. Others may obtain copies of the REVIEW from the Superintendent of Documents, Government Printing Office, Washington, D. C., 5 cents a copy, or by subscription at the rate of 25 cents a year, domestic, and 45 cents, foreign. Postage stamps will not be accepted in payment.

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Extension Service Review

VOL. 4

WASHINGTON, D. C., MARCH, 1933

NO. 2

Developing a Satisfactory Land-Utilization Policy

F. D. FARRELL

President, Kansas State Agricultural College

PRESIDENT FARRELL is chairman of the National Land Use Planning Committee, which was appointed by Secretary Hyde in accordance with the recommendations of the National Conference on Land Utilization, held in Chicago, Ill., November 19-21, 1931.

LAND UTILIZATION in this country has been subjected in the past to but little control. In the use of privately owned land and of much of the publicly owned land each individual user has done about as he pleased, without much definite reference to the ultimate effects on the land and with little conscious regard for the common welfare. This virtually uncontrolled use has been going on for 300 years. It has brought our land to its present plight. It has depleted our forest resources until we have an acute shortage of timber in most of the States. In the Western States it has brought large areas of the public domain to the verge of complete ruin. It has increased the flood menace. It has destroyed or greatly impaired the productiveness of millions of acres of farm land. It has helped to force other millions of acres of farm and range land into involuntary public ownership through tax delinquency.

This uncontrolled use of land has resulted from the fact that we have had no comprehensive nation-wide policy of land utilization. Some time we shall have to choose between a continuance of uncontrolled use, with permanent national impoverishment as a probable consequence, and a policy of land-use control by which the very basis of our civilization may be safeguarded.

Common Welfare

One of the first requirements for a satisfactory policy is that there be a widespread willingness of individuals using land to adjust themselves to the requirements of the common welfare. In the control of diseases of man and of animals, a comparable willingness has

made it possible to provide supplies of pure drinking water, to obtain pure milk and wholesome meat, to isolate contagious-disease patients, and to enforce quarantines. But in land utilization we still cling to an extremely individualistic philosophy, which will not give effective support to any sound policy of land utilization. As we have learned in the control of diseases we must learn in land utilization that the best interests of the individual in the long run require effective safeguarding of the general welfare.

Another important requirement is that sectionalism must be subordinate to national interest. We can not have an effective land-utilization policy for the Nation if any considerable part of the Nation is permitted to exploit the land resources within its borders without reference to, or in opposition to, national welfare. The people of Illinois have a vital interest in the conservation of forest resources in the States of Oregon and Mississippi. The citizens of eastern Louisiana would be vitally affected by any aggravation of the Mississippi Valley flood menace that might result from lack of erosion-control in Ohio or Iowa. Any land-utilization policy that ignores these interests and others like them is virtually certain to fail.

A third requirement is that publicly owned land must be administered in the public interest. Side by side in the Western States we have two situations, of which one illustrates the importance and practicality of this requirement and the other illustrates the destructive effects of disregard of this requirement. The natural resources within the national forests are administered in the public interest. This interest involves watershed protection, conservation of timber

and grazing resources, flood control, conservation of fish and game, and provision for recreation. Adjacent to the national forests in the Western States is the 175,000,000-acre public domain on which the natural resources are grossly neglected to the detriment of the entire Nation. Unless and until we become sufficiently public-spirited to correct our errors in the utilization of the public domain we are not likely to have an effective nation-wide land utilization policy.

Taxes

A fourth requirement is that in exercising the taxing power and other governmental powers we must take definite cognizance of the requirements for satisfactory land utilization. If land taxes are excessive, the owners of land virtually are forced to exploit rather than conserve land resources. Effective land utilization requires that the public encourage the individual to use land wisely as definitely as it requires that the individual make concessions to public interest.

That the control of agricultural credit by both public and private credit agencies be exercised in the interest of sound land utilization is a fifth requirement. In the past, extensive misuse of land has been made possible by the granting of credit primarily or solely on the basis of expected profits to the lender and without reference to the effects, on the land, of the enterprises for which the credit was extended. Both agriculture and finance would be in less difficulty at present if credit control had been better correlated with wise use of land in the past. In general, credit control in the past has favored immediate returns rather than long-time benefits and has

encouraged continuous expansion rather than moderation and conservation.

National Interests

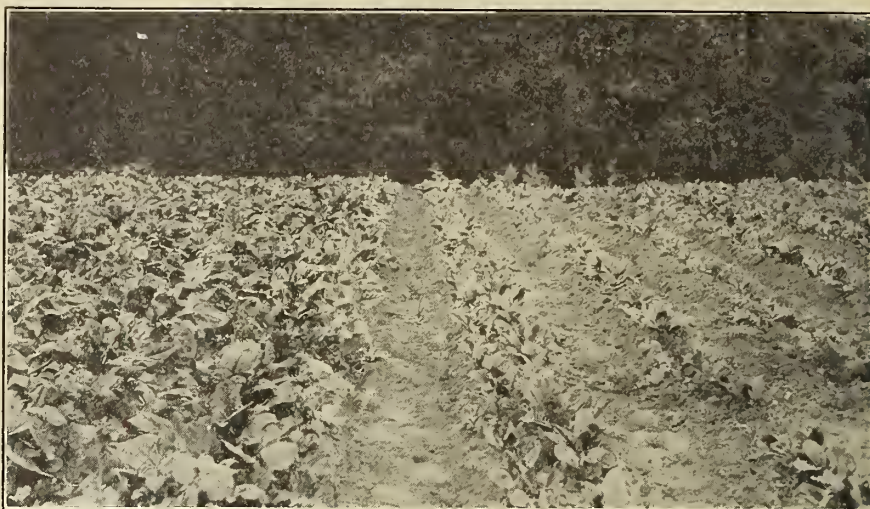
A sixth requirement is that a comprehensive policy of land utilization for the United States must have, not 48 heads, but one. That head must be a national agency with authority adequate to enforce the policy. The policy must take full cognizance of the interests of the various States, but these interests individually must be subordinate to national interests. Federal, State, and local authority and action must be coordinated. A definite sense of Federal, State, and local responsibility must be maintained. Doubtless there will be widespread opposition to the control of a land-utilization policy by a national agency, but the hard practicalities of the situation, and particularly the increasing interdependence of all sections of the country, make Federal leadership seem inevitable.

There is nothing inherently objectionable in a national heading-up of any activity in which we all have an interest and with reference to which we are highly interdependent, whether the activity be land utilization, research and education in agriculture, the management of national parks or the maintenance of national defense. Each of us has as genuine a stake and should have as genuine an interest in national affairs as in local affairs. Too many of us regard the Federal Government as something remote or even inimical. We should do well to stop making a bugaboo of Federal leadership and to begin taking a more constructive interest in it and helping to make it increasingly satisfactory.

Genuine progress is being made toward the development of a land-utilization policy. Legislation providing for the proper management of the public domain seems to be in sight. In several States, auspicious beginnings have been made in reforestation of lands suited to forestry. There is increased public interest in adjusting taxation to land use. Public opinion, an imponderable, elusive, but indispensable factor, seems to be crystallizing slowly but definitely, in favor of relating land use to the public interest.

In a country having as diverse conditions as ours, a land-utilization policy that will work can not be created quickly. It must grow. It can be and it must be planned, not all at once but step by step. The development of a feasible policy and its application must result from the compelling pressure of events and from persistent, vigorous study and effort by well-informed, public-spirited citizens.

Grow a New Crop



A 5-ton crop of spinach was grown by using 1,000 pounds of 9-3-10 fertilizer. On the check plot a half-ton crop was grown

SPINACH was a new crop for the vegetable growers of the Troutdale district, Multnomah County, Oreg. Contracts were offered them by a reliable concern to grow 130 acres of spinach at \$22 per ton, delivered at a near-by station.

S. B. Hall, who has been county agent in Multnomah County for 16 years, did not sit idly by. He recognized in spinach a vegetable crop that would permit double cropping. It would, if successful, prepare the land for fall cauliflower, pay for the cost of commercial fertilizer for both crops, and leave a little spring cash in the pockets of vegetable growers. It would provide another income period for the cauliflower and cabbage growers of the Troutdale district.

Hall knew, as a result of his long experience and many fertilizer trials in Multnomah County, that plenty of commercial fertilizer would be essential to the success of the spinach crop. He met

with growers and strongly recommended that each acre planted to spinach receive 1,000 pounds of a 9-3-10 fertilizer. Growers accepted the recommendation. Numerous check plots where no fertilizer was applied showed that fertilizer made the difference between success and failure with the crop. On the fertilized acreage spinach yields varied from 2 to 8 tons per acre. On the unfertilized plots the crop was not worth harvesting.

County Agent Hall did not stop with this recommendation and its adoption, which made the difference between profit and loss for spinach growers, but he established a series of fertilizer trials in which rates of application were varied as well as the composition of fertilizers applied, so that better and more accurate information might be available for another season.

Fifty growers viewed the results of the demonstrations on a field-inspection tour in May.

Using the Field Meeting

"IT HAS TAKEN me 12 years to realize the full value of the field meeting," says County Agent C. L. Hall of Halifax County, Va.

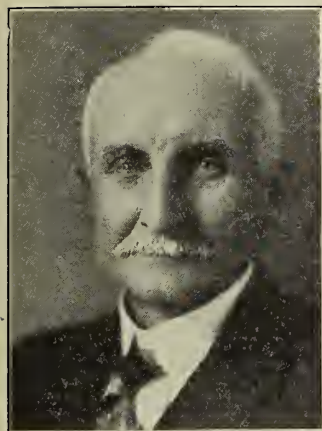
"If your people need to use more Korean lespedeza," he continues, "take them to a successful demonstrator, either in your county or in some other. They will be greatly impressed with the value of the crop after seeing for themselves and talking with the owner. I took 101

farmers to a successful demonstrator in Halifax County to find out how to grow lespedeza, its value as a hay and as a soil-improving crop, and to learn as much as we could about threshing the seed. Visiting one of my farmers later, I asked him how he liked the hay. He replied, 'I learned more from that trip than from any I ever took, and next year I'm going to have the crop all over my place.'"

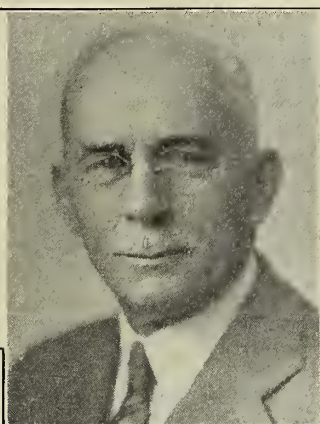
Extending Plant Industry Information

WILLIAM A. TAYLOR

Chief, Bureau of Plant Industry, United States Department of Agriculture



William A. Taylor



C. P. Close



O. S. Fisher



R. J. Haskell

THE BUREAU of Plant Industry has a keen interest in getting the results of its investigations before the farmer, and in its past experience the cooperation of plant research and extension workers has facilitated the prompt application of many of the practical results of the research work of the bureau.

In the arid and semiarid regions of the West, our division of western irrigation agriculture has long had close and cordial relationships with the State extension services and county agents. The county agents have kept in close touch with the investigational work with field crops and the rotations and cropping methods best suited to successful irrigation farming in those regions covered by the reclamation projects. Similarly, our dry land agriculture field stations in the Great Plains area function to a considerable extent as demonstration laboratories which the county agents and specialists visit in person and to which they bring groups of farmers to obtain firsthand information concerning soil and climatic conditions throughout the region and the agricultural effectiveness of each of the many different methods of tillage and crop rotations that are more or less suitable for this region where irrigation is not available. In the northern Great Plains for a number of years, co-operators in shelter-belt plantings have been selected on the recommendation of county agents. Following the adoption of this plan, the percentage of co-operators remaining active in such work at the end of five years increased from 47 to 85.

The division of cereal crops and diseases maintains a close touch with the

subject-matter specialists of the Extension Service, O. S. Fisher, extension agronomist for the Extension Service being quartered with that division of the Bureau of Plant Industry. At the present time a special cooperative extension project is under way on smut (bunt) control in wheat, one part of which involves a careful field survey of prevalence, intensity of infection, efficacy of treatments in reducing infection, degree to which directions are followed in using treatments, and percentage of growers treating. The information thus obtained is necessary both to the extension and research worker.

Through R. J. Haskell, extension plant pathologist, the bureau keeps in touch with the extension work on plant-disease control that is in progress in the States and assists the State extension specialists, and through them the county agents and growers, with their crop-disease problems.

Barberry Eradication

Increased activities on the part of the State and Federal extension agents, under the leadership of the division of barberry eradication, have had much to do with the progress made in the program of black stem-rust control through barberry eradication in the Mississippi, Missouri, and Ohio Valleys and the Upper Great Lakes wheat regions. Stem-rust control, which tends to stabilize small grain production and improve the quality of the grains produced, fits well into the present-day farm program. In

each of the 13 States where barberry eradication is being carried on, the extension director is a party to the memorandum of understanding governing the work.

In the division of blister-rust control the blister-rust control agents of the bureau, whose objective is the protection through Ribes eradication of the valuable white pine forests of the Northern States, both east and west, against the ravages of the destructive blister-rust disease, welcome cooperation with the county agents in every practical way. Members of both organizations have found it mutually helpful to work together in organizing local field meetings, forestry demonstrations, and lecture tours. Sustained interest in blister-rust control is an increasingly important factor in the prevention of further damage by this very destructive disease of those invaluable timber trees, the white pine of the New England and Great Lakes regions, the western white pine of the Inland Empire, and the sugar pine of Oregon and California.

Improving Cotton

One outstanding feature of information and service available to county extension agents is the one-variety community cotton-improvement work and the establishment and maintenance of supplies of pure cottonseed in the South. In connection with the intensified south-wide effort to improve the quality of cotton produced in the United States, the bureau is now in a position to furnish additional advisory assistance to county

agents on the community-production features. Representatives of the bureau are in close touch with the extension forces in the cotton States through frequent conferences with the directors of extension and personal contacts with county agents, vocational teachers, and others in encouraging the organization of one-variety cotton districts where supplies of pure seed can be produced and maintained.

In the States in which tobacco production research is prosecuted, very close contact with the extension forces is maintained, largely through the State extension specialists and extension pathologists. Our specialists furnish data and material for extension activities and frequently participate in county or district meetings of farmers sponsored by the extension forces. Features of the work generally emphasized are various phases of disease control including use of disease-resistant varieties, seed-bed sanitation, rotation of crops, and correct use of fertilizers, including the diagnosis and treatment of nutritional deficiency symptoms.

Mimeographed material on weed-control subjects not covered in printed pamphlets has been sent to all county agents, and upon request detailed information on localized weed questions has been furnished. Emphasis is placed on the exchange of ideas and data on weed control with State and Federal extension specialists.

Seed Samples Tested

The division of seed investigations maintains an advisory service for farmers, seedsmen, and others interested in seed quality, based upon seed samples tested to determine the proportion of pure seeds present, the kind and proportion of weed seeds, and the germination of the pure seed. Through the Extension Service information of current importance to farmers resulting from these investigations has often been promptly disseminated, as in the warning of the farmers of the South as to the quality of hairy vetch seed which was being imported into the Southern States. The Federal seed act is enforced, requiring the sampling of all shipments of field seeds, the coloring of red clover or alfalfa seed of foreign origin and, regardless of origin, establishing penalties on misbranding and adulteration of seed in interstate commerce. The county agents have been supplied with samples of colored seeds indicating the way in which imported seed of alfalfa and red clover is colored on the basis of the country in which produced.

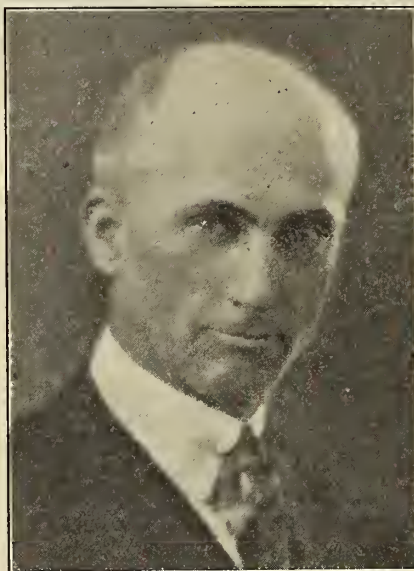
On the numerous and widely varied problems of commercial horticulture, the

division of horticultural crops and diseases through C. P. Close, extension horticulturist, cooperates with the extension workers on many projects. One such feature which recently has been of paramount importance in several fruit-growing sections has been the making promptly available to fruit growers of safe and effective methods of cleansing such fruits as pears and apples of excessive spray residues resulting from the application of the insecticides and fungicides found necessary to protect them against insect and fungus pests. This has been of special importance to the deciduous fruit industries of the Pacific

Coast and Rocky Mountain States and its necessity is more recently being recognized in the Mississippi Valley, Lake Region, and more eastern fruit districts.

The results of research in the bureau as well as new ideas on extension methods are carried to the States. The publication and distribution of practical experimental results in popular form such as farmers' bulletins, leaflets, press releases, and radio talks is encouraged and participated in. Assistance is rendered in the preparation of lantern slides and film-strip lectures, motion pictures, posters, charts, and exhibit material.

John S. Collier



John S. Collier, dean of agricultural advisers in Illinois, and one of the early pioneers in extension work in the northern United States, died on Thursday, January 12, after a protracted illness at his home in Kankakee, in which county he served as agricultural adviser since June 1, 1912.

Mr. Collier was an original and a creative thinker. He possessed to a remarkable degree that essential qualification of an extension worker, namely, the ability of enlisting the support and cooperation of farmers in his county in the projects and enterprises he sponsored. The business men of the county also gave his work whole-hearted support.

In connection with one of his first projects, that of soil improvement, he initiated a movement in his county which resulted in the widespread use of lime and rock phosphate throughout the county. A number of successful coopera-

tive enterprises, farmer owned and controlled, were organized through his efforts.

Mr. Collier was interested in the human and social sides of farming and was responsible for the organization of a young men's country club, designed to meet the educational and social needs of farm boys between the ages of 15 and 20. A farm boys' band was organized and has functioned for the past 10 years. One of Mr. Collier's last projects was the development of a small tract of land adjoining the Kankakee River to be used as a recreational park for rural people. Mr. Collier has been in failing health for the past two years. Last March he underwent an operation, from the effect of which he never recovered. At that time he expressed a desire that he might live and serve until June 1, 1932, thus completing 20 years of continuous service.

Collier's early training and education was designed to fit him for a physician. It was while in training for this profession that he heard the call of agriculture and shaped his course from that time with that end in view. When he was selected to serve as agricultural adviser in Kankakee County in June, 1912, he was completing his graduate work at the University of Illinois. He had secured his master's degree from the University of Chicago in 1910.

Mr. Collier was in his fifty-sixth year. He leaves a wife and two daughters. He was a charter member of Alpha Mu Chapter of Epsilon Sigma Phi. Mr. Collier will leave his mark upon the community which he served so faithfully and long. He had a sincere, earnest purpose to serve agriculture. His interest in young people was genuine and the problems, the distress, and difficulties of farmers affected by depression became his problems. He assisted many farmers personally and only regretted his inability to do more.

Mother Walker of South Carolina



Mrs. Dora Dee Walker



Rear of house after and before improvements were made

DEAR TO THE hearts of the women and girls of South Carolina is Mother Walker, and this is natural for she has devoted the past 22 years to the enrichment of farm homes in that State. Mrs. Dora Dee Walker took up home demonstration work on March 10, 1911, and since then has worked at it continually. Long before automobiles became the extension mode of travel, she used a horse and buggy in visiting her club girls.

She worked first with the tomato and canning clubs, organized to help provide a living for the boll-weevil devastated areas. Later during the World War she was active in the work of the Government with war gardens and food preservation. After the war she continued the program in which she so thoroughly believed of providing an adequate food supply for the family through gardening and food preservation. As this work became established she has also included beautifying the country and the development of farm communities.

The extent and scope of the work Mrs. Walker has done can be seen from a survey of the work she did last year which was the outgrowth of her years of service as an extension worker. She has always emphasized a good supply of food

as essential to the welfare of the home, and last year as in previous years a determined live-at-home program was put on. There were 12,746 home demonstration club women and 10,000 4-H club girls followed her leadership in planting year-round gardens, fruit trees, berry bushes, and grapevines of their own last year, and in addition they put up more than 2,000,000 containers of fruit and vegetables for the winter's food supply. Each of these farm women put up 10 extra containers for the poor and each club girl one extra container which goes to show just how contagious is this spirit of giving.

Beautifying Home Grounds

Beauty is one of the cardinal points in Mother Walker's creed for the farm home. She has traveled the length and breadth of the State for many years helping with flowers, trees, shrubs, gardens, drives, and lawns. More than 12,000 homes in the State have been beautified and 500 church grounds and 700 miles of highway have been planted and beautified through her influence. With the slogan "Beautify South Carolina from the mountains to the sea," home demonstration work has left a trail of lovely homes. In one county each club member planted near the road a crape-myrtle tree which in season gives color to the roadside. In another county kitchen window boxes were the fashion. The difference in the appearance of South Carolina country homes is apparent even

to the passing stranger. Two model home grounds have been established in each of the 46 counties as examples of what can be done. These attract much attention with their spacious lawns, flowers, shrubbery, lily pools, flagstone walks, and other picturesque features.

After home-beautification work was pretty well launched Mother Walker turned her attention to another need of the farm family in which she had long been interested—the need for wholesome social and recreational activities. The farm community also needed playgrounds, parks, a clubhouse, a dramatic society, athletic teams, and the other things which go with wholesome community activity. Mother Walker set about establishing model communities in each county. She said "I knew the spirit would be contagious once I could establish one model center in a county." Now, several counties are working voluntarily on their second and third community centers. Thirty model communities have been established and with the cooperation of all community organizations are working out a community program. A research committee gleans the history of the community, and this is used as a basis for pageants and community activities.

"What a wonderful privilege and pleasure," writes Mrs. Walker, "to be endowed with the mission of showing the world the wisdom of developing the country home with all of its profit and beauty and to stand the champion of happier and more efficient farm homes, better school

(Continued on page 22)

Educational Research Needed in Extension

W. W. CHARTERS

Director, Bureau of Educational Research, College of Education, Ohio State University

TO DATE those charged with the administrative direction of extension in the various States have given relatively little attention to the problem of measuring the effectiveness of their work. The additional funds required to maintain the work and care for normal expansion have been obtained with comparative ease. There has been no financial reason for proving their case.

But, fortunately, in the long view, the time is at hand when taxpayers are scrutinizing all appropriations and demanding to know what is being accomplished by the agencies supported by public funds. The effectiveness of technics and the improvement of methods of extension teaching are now matters of more than ordinary concern.

Research Needed

Because the extension personnel in the States has been completely engrossed with its tasks of education and administration no agency has been set up whose primary function is the study of technics of extension education, yet no major industrial plant which works with iron or cotton would in the twentieth century think of carrying on without its research department, since one can prove in dollars and cents that research pays in material profits. By analogy, no agency that deals with the spiritual values of human life, with aspirations and ideals, with the family and the home, can afford to be less foresighted than the workers in steel and coal and clay. That is self-evident.

One reason for this striking deficiency has been the absence of research technics which were appropriate to the investigation of extension problems. But during the last quarter of a century technics have been developed in allied fields and

have reached a state of proven value in many directions. More recently the division of extension studies and teaching of the Federal extension office has shown the application of research procedures to the study of extension problems.

Discovering Technics

Many technics remain to be perfected, but there are enough for a start. The wide-flung personnel of extension education has itself a contribution to make to the allied fields as well as to its own by discovering and perfecting technics of investigation as its national obligation.

This period of depression should produce a new agency in extension education—the research agency dealing exclusively with the investigation and improvement of extension objectives, plans, policies, technics, and administrative procedures. Each State with an annual budget of \$350,000 can afford, indeed can not afford not, to set aside 2 per cent of its budget for research. This amount, which is \$7,000, is sufficient as a minimum in a State with that appropriation, to set up a modest, practicable, and useful department.

This would provide \$4,000, let us say, for a young man who knows extension activities and has learned the research technics of education and sociology. Indeed, a superior member of the extension force might well be permitted to take a year or so of graduate work in experimental and statistical subjects in preparation for such a position. Local departments of education could always be depended upon to contribute advisory services. In brief, it is entirely practicable to discover or select or train a substantial officer.

The sum would provide also a stenographer at \$1,000 or \$1,200, a floating fund of \$1,000 for casual clerical labor, and

leave \$800 to \$1,000 for supplies, travel, and contingent expenses. The sum is not generous, but it will produce results.

As I see such a department, its chief function is to help the staff to study their problems. It will look up references, compile statistics, set up central studies and in short step in at the point where members of the staff need to have some one look up data to help them in their investigations, and so lift their studies from the level of subjective opinion to objective fact.

Studying Problems

Obviously a second function will be to organize, coordinate, and stimulate investigations by suggesting and studying problems, by providing facilities for study, and by applying pressure to see that studies enthusiastically begun by the staff are patiently finished by them.

Needless to say, the national importance of such State research agencies is substantial. They could with assistance of the research division of the Federal Extension Service cooperate in the study of common problems upon a national scale, and thereby solve some of the major problems of national policy.

Investigation of Methods

Research activities in State extension departments are necessary, practical, and useful. The time is ripe. Funds can be wisely diverted from other extension activities to provide maintenance. Indeed the first charge to be made against extension appropriations should be for the support of investigation of methods of improving the activities for which the appropriations are made. Particularly is this the case in 1933 when it is necessary to maintain as high a quality of service as is possible with drastically reduced appropriations.

Mother Walker of South Carolina

(Continued from page 21)

life, better church life, better community life, all inducing a better citizenship."

"Looking back through 22 years, the development of leadership among farm women and girls furnishes one of the most satisfying comparisons between then and now," she declares, "Then the farm women and girls were unused to and averse to taking part in public meetings.

They naturally and unobtrusively withdrew from public activities. Now even the casual observer notices the ability of hundreds of farm women and girls to lead with perfect ease and conduct their meetings with parliamentary distinction. This seemed especially noticeable in the work of 1932 partly because of the depression and the cooperative plan which we have emphasized—definitely a plan of helping more people."

The requisites for a successful extension worker according to Mother Walker are fourfold: First, have a method and

follow it literally; second, establish a bond of real sympathy; third, sacrifice self and substitute service; fourth, create confidence.

Some of the compensations of extension work she describes thus: "Being a common multiple in distributing extension plans and projects is glorious. Being a common multiple in the solution of the home and farm difficulties is more glorious. Being a composite element in creating a vision of life considered on a higher plane and viewed through a different lens is most glorious."



Laying lines for a new terrace

TERRACING in Texas is now going ahead at the rate of 1,000,000 acres each year. About 24 per cent of the land which would profit by it is already terraced to prevent erosion. Eleven counties in the State have more than half of the crop acres terraced or contoured. This progress can be attributed directly to the influence of the county agricultural agents of the State, who during the past 15 years have located demonstrations of terracing upon the hillsides of nearly every important county.

The increased value of terraced land is estimated at \$8.00 per acre on the average. This figure was agreed upon by Texas and Oklahoma county agents, farmers, farm-loan association secretaries, and farm mortgage companies and therefore represents a fair estimate in cold cash of the value of terracing. Multiply \$8.00 by the more than 6,000,000 acres which have been terraced in Texas and you will have some idea of the value of this contribution of county extension agents to the prosperity of the Texas farmer.

Terracing Demonstration

The first terracing demonstration in Texas was held at an agent's meeting at Tyler in 1910. T. B. Wood, county agent in Trinity County (now district agent), did one of the first jobs of terracing on a 30-acre tract, using a farm level, in 1911. By 1914 terracing had become general as a part of the county agent's program; but what a fight it was to convince farmers of the need for it. It was branded as unnecessary, impractical, and cited as an example of the folly of book learning. When a terrace broke under a strain of a heavy rain the agent had to look out.

Terracing Texas

First in east Texas and then in west Texas and in south Texas demonstration after demonstration was getting in its work. Agents still hammered away and in the years succeeding 1920 it got a little easier. Terracing became respectable. Then level terracing was developed in west Texas by county agents to conserve rainfall on nearly level land. Things began to happen. A county agent, Ed Tanner, then of Dickens County, now of Maverick County, suggesting it, the Spur experiment substation in 1925 began the first scientific study of erosion and water

A typical example of how this work is carried on in the county is Comanche County. The business men bought farm levels to lend free to their customers. The industrial and vocational schools, the 4-H clubs, and other organizations worked together under the leadership of the county superintendent and county agent, J. A. Barton, to achieve the result of 15,000 acres of land terraced.

In every community one or more outstanding demonstration in terracing showed the farmers of the surrounding country the value in holding water and soil and thus increasing the yield of crops.

In 11 communities 50 per cent or more of the land was terraced.

Terracing School

One county-wide terracing school was held by the county agent assisted by the extension agricultural engineer, M. R. Bentley. Ten special schools were held for instructing industrial schools and 4-H clubs in terracing. The setting up of levels, adjusting them, running and spacing terraces, and the proper building of the terraces were some of the things taught in these schools.

The work of the young people added materially to the total results, since a check showed that 6,000 acres were terraced by 4-H clubs and industrial schools.

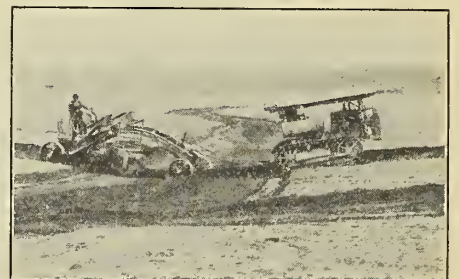


Terracing to save the soil of this Travis County farm

run-off and terracing in Texas. The first results of this experiment were astounding. Level land washes away! Most of the rainfall is lost! Terracing stops it, sure enough!

Terracing had come into its own. The 15-year struggle of county agents to awaken farmers to the erosion dangers ahead had succeeded. Organization after organization got behind the movement. The extension agricultural engineer, M. R. Bentley, and A. K. Short, employed as terracing and soil conservation agent by the Houston Federal Land Bank, held schools in every section of the State for training farmers and club boys to run the lines, and the work has grown and grown until 6,000,000 acres are now protected and the rest of the land subject to erosion is being terraced at the rate of nearly 1,000,000 acres a year.

Comanche County has close to 200,000 acres in cultivation and the survey shows that at least half of this land is in need of terracing, 45,000 acres having been terraced, leaving 55,000 yet to be done. As there are 35 farm levels in the county and more farmers are using them, County Agent Barton hopes that the terracing job can be completed for his county in five more years.

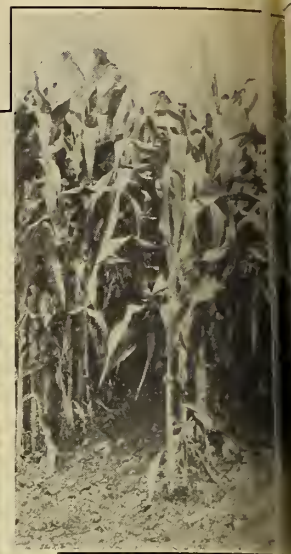


Terracing in Childress County

Results from the Extension

JUDGED from the standpoint of the number of States involved, the number of active farmers cooperating in the program, the amount of work accomplished, and the direct benefit to farmers in increasing cash income, the crop-standardization and seed-improvement program stands first in the projects in extension agronomy, according to O. S. Fisher, Federal extension agronomist.

Mr. Fisher states that commercial interests, such as mills, elevators, and the seed trade, look upon the crop-standardization and seed-improvement program as a safeguard in making possible the production of large quantities of seed or grain of known variety and standard quality. Mr. Fisher outlines in the following statement the present status of the seed-improvement program and recent progress that has been made.



Certified seed

CAN 13,603 progressive wide-awake farmers be wrong? This is the number of members reported in 37 State seed-improvement associations, who because of their membership are indicating not only their interest but their belief that the crop-standardization and seed-improvement program is of value to the American farmer.

Of what value is the seed-improvement program to the farmer? In order to answer this question a survey was made of the 48 States this past fall, asking the extension agronomists to furnish information showing the actual yields of certified or improved seed when grown in direct comparison with the farmers' own seed. Replies were received from 33 States and a summary of the results secured for wheat, corn, oats, barley, and potatoes is given.

supplies of their State. They cooperate with the extension agronomists and the plant breeders of the agricultural experiment stations of the various States in multiplying and distributing improved seeds of various kinds. These associations work primarily along two lines: First, the production of seed supplies, especially small grains and corn, for the use of farmers in their own communities, counties, and States. Second, the production of seed supplies primarily for export to consuming areas in other States, but also for use within the areas in which they were produced. This refers to the production and certification of alfalfa, clover, lespedeza, and potatoes.

In what way does the extension agronomist come into this program? The extension agronomist is the leading and guiding spirit in the State seed-improvement and crop-standardization program. He cooperates with the plant breeders of the agricultural experiment station in demonstrations to determine the value of new and improved varieties of the various crops. He cooperates with the State seed-improvement association in the development of this work, assisting in the distribution of foundation seed supplies to qualified farmers who will multiply them and keep them pure for further distribution. He handles the publicity work in connection with the seed-improvement program, and assists in the training of inspectors for the field in-

spection of the various crops. In general, he is recognized as the real leader of the program in the State.

County Agent Assists

What is the place of the county agent in this program? The county agent cooperates with the extension agronomist and with members of the State seed-improvement association in selecting specially trained farmers to multiply foundation seed from the experiment station. He further cooperates in the distribution of certified seed to men who will multiply it for general distribution. He assists his farmers in obtaining supplies of improved seed by giving them seed lists or addresses of farmers having certified seed for sale and advising them as to the various strains or varieties that seem to be best suited for their own farm and their section of the State. He assists in furnishing information for the local newspapers regarding the value of the seed-improvement program and sources of seed supplies.

How many States have seed-improvement associations? Thirty-seven States have some form of an organized seed-improvement association, some naturally being much better organized than others. However, some form of seed-improvement work is being carried on in all 48 States.

How long have we had State seed-improvement associations? This question

Crops	Average common seed yield per acre	Average certified seed yield per acre	Gain	Gain
	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Per cent</i>
Wheat.....	23.4	28.9	5.5	23.5
Oats.....	41.1	50.7	9.6	23.3
Corn.....	36.8	44.4	7.6	20.6
Barley.....	37.2	48.3	11.1	30.0
Potatoes.....	180.0	314.0	134.0	74.4

What is a State seed-improvement association? A State seed-improvement association is a group of farmers organized for the purpose of helping in a systematic way to improve the seed

Seed-Improvement Program



form, vigorous crops



is as hard to answer as "How old is Ann?" Some States report that they have had seed-improvement associations for 20 to 25 years. However, the large development in this work has taken place in the last 12 to 15 years, and the active work of many of the associations has come within the period since we have had extension agronomists and county agents to cooperate in fostering and developing this work. The demand upon the county agent by progressive farmers to help them obtain better seed than they are able to get on their own farms or that of their neighbors has given added emphasis to this program.

Associations Cooperate

Is each of the seed-improvement associations operating entirely independently? The answer is no. Fourteen years ago there was organized at Chicago during the hay and grain show an association known as the International Crop-Improvement Association. This is composed at the present time of 27 State seed-improvement associations and the seed-improvement work fostered by the Dominion of Canada. The principal function of the International Crop Improvement Association is to set up standards of uniformity for the conduct of seed-improvement associations in order that the work of the various associations may be comparable and the quality of seeds produced by them be of uniform

value. This makes it possible where it is necessary or expedient for the farmers of one State to buy seed through another seed-improvement association to do so with the assurance that the seed they are obtaining is of the same high standard as seed produced by members of their own association. It also makes it possible in times of drought or other disasters for farmers in one State to buy large quantities of seed of desired strains from other States and be sure that their own crop-standardization program will not be destroyed or seriously handicapped by the necessary delay.

Some people may contend that such increases in yield will only cause increases in crop production and that we have at the present time more crops than can be disposed of at a profit. However, we must always keep in mind the fundamental fact that for the individual farmer large yields per acre of quality crops are necessary for profitable production.

Are there sufficient supplies of certified seed to be a real factor in supplying the needs of the progressive farmer? The following table secured from the latest summary of seed-improvement work gives the quantity of certified and improved seed for a few of our standard crops. Space does not permit including the entire list. By improved seed is meant seed that is not more than one or two years removed from certified seed.

Seed produced	Certified seed	Improved seed
Wheat.....bushels..	388,933	697,713
Corn.....do.....	225,058	164,463
Oats.....do.....	405,964	659,087
Barley.....do.....	234,577	173,650
Rye.....do.....	25,686	5,980
Potatoes.....do.....	6,374,911	499,003
Cotton.....pounds..	4,849,625	3,199,762

The seed-improvement and crop-standardization program has now developed until there are sufficient supplies of seed to furnish any farmer who desires to improve his seed supplies with seed of known varieties and guaranteed quality. This seed sells at a very narrow margin over market prices and there is no one thing that the farmer can do which will be of greater value in increasing his cash income at a lower initial cost.

WHEN FARM BUREAU women met in Waterloo, Iowa, for their annual achievement day program each woman brought a dozen eggs to be sold to provide money for the music fund.

Money received for these eggs helped make up a fund to buy records and music for 4-H club and home-project work.

The main events on the achievement day program included a county-wide pageant in which all townships took part, songs by a county-wide chorus, and quartets from several townships.

Wheat Smut Losses Reduced in South Dakota

WHEAT SMUT was causing tremendous losses in Brown County, S. Dak., in 1928. The smut situation was so serious that 41 per cent of the 2,018,250-bushel crop graded smutty at the terminal market. This meant a loss of nearly \$50,000 to Brown County for the one year's crop, not taking into account the further loss of lower yields due to smutty wheat.

This situation gave rise to the intensive crop-improvement program which has been carried on in Brown County for the past four years. The biggest factor in the success of the program was the information obtained from the Minneapolis market, according to Ralph Johnston, extension agronomist, and W. E. Dittmer, county agent. Accurate information on the exact amount of smutty wheat shipped from each shipping station and locality in the county was obtained by Mr. Dittmer and the Northwest Crop Improvement Association. With these facts at hand it was possible to go into each community and show the grain growers exactly what was happening to their wheat when it reached the terminal market. Charts were made which showed in graphic form the percentage of smutty cars of wheat shipped from each shipping station, and leaflets giving this information were issued. Summaries of the facts on seed treatment covering the materials used, treating methods followed, varieties most affected, and relative amount of smut in the durum and hard red spring wheat classes were furnished the county agent.

Crops Committee

An active crops committee composed entirely of farmers went to work in Brown County. Committee members spoke at meetings; lined up demonstrations where quantities of seed wheat were treated; gave news articles to the papers of the county; held an elevator managers' school; and secured the cooperation of the elevators in using "smut discount posters"; met with the newspaper men of the county to become better acquainted and work out a news program for the county; and met with druggists, implement dealers, and city business men owning farm lands to secure their cooperation.

In 1930, the second year of the campaign, 77 per cent of the 1,790 farmers in Brown County treated their grain for

smut. Only 6 per cent of those treating had over 1 per cent smut while of the 22 per cent not treating 28 per cent had 1 per cent smut. This made a good talking point for the farmers. The smut-control conference for elevator managers brought out 100 interested elevator managers. Nine new dust-treating machines for smut were distributed in different communities for demonstration purposes. One hundred boys and girls took part in a county smut-control essay contest. The elevator survey at the close of the season showed 150,000 bushels of red durum wheat replaced by better quality hard spring wheat and 500,000 bushels less of smutty wheat were marketed.

Improvement of Grades

The survey of the 1932 crop for Brown County will be made in April or May but the 1931 crop showed only 5½ per cent of the 1,064,250 bushels marketed graded smutty. It is estimated that Brown County received \$76,500 more for its 1932 crop because of improvement of grades of grain and reduction in amount of smutty wheat marketed over that prevailing in the previous year. There were 372,000 bushels less of smutty wheat marketed than in 1931.

The elevator managers continue to give whole-hearted cooperation in making it possible to secure the facts on shipments of grain to the terminal market and meeting each season to plan for the smut-control program. Because of their part in improving the county wheat crop, they have become interested in seeing extension work continued and are boosting the work in every way possible.

The extension service, in cooperation with the crop improvement association, has just completed a record on all the Minneapolis wheat receipts for the entire State by shipping stations which will be used in other important wheat-growing counties in the State in a campaign similar to that carried on in Brown County. This campaign is not only aimed at the reduction of smut but also at the reduction of the acreage planted to red durum and mixed wheat. Varieties of hard red spring wheat and durum wheat which have proved to be high yielding as a result of crop variety demonstrations conducted in many parts of the State will be recommended for planting instead of the red durum and mixed wheat.

THE FILM-STRIP series 283, entitled "Protect Small Grain Crops from Black Stem Rust," consisting of 28 frames, has been completed by the Office of Cooperative Extension Work in cooperation with the Federal Board for Vocational Education. This series illustrates the relationship of the common barberry to the occurrence of black stem rust and tells the story of the campaign that is being waged against rust-spreading common barberry bushes in 13 of the North Central grain-growing States. It supplements Leaflet No. 1, "Suggestions for Teaching the Job of Controlling Black Stem Rust of Small Grains in Vocational Agricultural Classes," published by the Federal Board for Vocational Education.

The film strip may be purchased from the contracting firm at 35 cents, provided authorization to purchase is procured from the Office of Cooperative Extension Work.

Disease Control Eliminates Waste

Losses due to disease in sweetpotatoes are being eliminated by the growers of Sussex County, Del. In the last 10 years the yield per acre has advanced from 125 bushels to 175 bushels per acre largely due to better control of disease. During this period the total acreage in the county has decreased from 8,000 to 6,800 acres. About one half of the 3,365 growers in the county now treat their seed for disease, reports the county agent, C. R. Snyder, who in cooperation with Dr. J. F. Adams, extension plant pathologist, has been carrying on a disease-control project for several years.

Last year five farmers cooperated by an instantaneous dipping of their sweetpotato sprouts in a disinfectant just before setting them in the field. On the treated plots from the treated sprouts the average infection of a stem rot was 4.6 per cent, while on the untreated fields the average infection was 30 per cent. One farmer, J. W. Messick, decided to make a check of his own to see just how much good it was doing to treat the sprouts as recommended. He planted eight rows of untreated sprouts in the middle of the field. These rows showed an infection of 31 per cent stem rot. The treated plants which were on both sides showed a 2 per cent infection. The treatment of plants on these five demonstration farms resulted in an improvement of 26 per cent in the quality of yield. Cost of production records kept by 17 farmers, involving 52 acres of sweetpotatoes, in 1932 showed the cost of seed treatment to be only 0.7 per cent of the total cost of production.

4-H Club Work in Utah

WILLIAM PETERSON

Director, Utah Extension Service

IN CARRYING on 4-H club work in Utah, parents and club members in cooperation with the extension service decide cooperatively what projects will be undertaken by the boys and girls of their respective community. This plan creates greater interest in the entire extension service program by all members of the family, the farm bureau, and other organizations.

Groups are organized and conducted according to parliamentary practice. This policy has resulted in a stricter observance of parliamentary procedure among adults in their conduct of community and county meetings.

To maintain club interest several joint sessions with parents, senior club members, and leaders are conducted during the year.

Club members keep an accurate record of all expenses and receipts connected with their project. This requirement has developed interest on the part of the parents in keeping farm and home accounts.

Health Program

Every club member, regardless of his project, is required to follow the health program. Club meetings are held for parents, leaders, boys, and girls, where charts, posters, and demonstration material based on foods, clothing, rest, sanitation, exercises, and general health habits are explained. This instruction creates a consciousness on the part of the boys and girls that they have a responsibility to develop strong physiques.

These meetings have created a more cooperative attitude toward improving the physical, mental, and moral condition in each home and community. Many adults have been brought to realize the importance and responsibility of bringing a good body into the world.

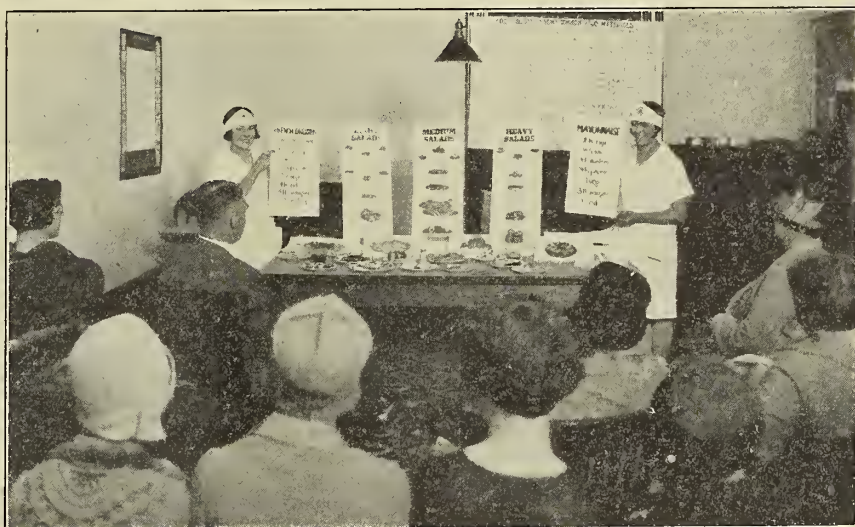
As a result of the health program greater interest has been taken in the care of the home, preservation of food, adherence to sanitation, and respect for the health of each other. A larger consumption of milk and vegetables and a more careful planning of family meals have been noted. Following one of the health talks, a group of married women asked to join a 4-H club because the girls were learning more about foods than their elders knew. A meeting was arranged for them and they were or-

ganized into a young mothers' group of junior adults with a leader chosen from the group.

The livestock project with boys and girls has stimulated a keener interest in type and methods of feeding animals on the farm. The quality of animals kept on many of the farms throughout the State has been greatly improved by adherence to 4-H club practices. It has been the policy of the extension service to insist that club members obtain ani-

mila, produced 406 pounds of butterfat in a year. These two animals produced, with their first calves, an average of 60 pounds more fat than the average of the animals in the Utah County Herd-Improvement Association, and 225 pounds above the average for the cows in Utah County.

As a result of these outstanding heifers, many of the dairymen of the county are attempting to substitute cows of the same quality as the cows owned by the



A salad-making demonstration given by Utah 4-H club members

mals of good type and breeding for their projects. One of the objectives of the livestock club is to demonstrate the advantage of proper feeding.

Dairy herd improvement in one county has been effected as a result of the 4-H dairy calf clubs. Twenty-eight purebred calves, most of which were from dams and sires whose records showed them to be superior animals, were purchased by club members. These animals have been used as foundation stock in building up the dairy herds. Two of the animals owned by club members have just finished their first lactation period. As examples of the type of dairy stock obtained by the clubs, cows of two club boys may be cited as typical. The animals are owned by George Warnick and Grant Atwood. One cow produced 481 pounds of butterfat in 9 months as a 2-year-old, 17,592 pounds of milk and 587 pounds of fat in 12 months. Another heifer owned by Grant Atwood, of Ma-

club boys, especially for the poor ones included in the herds.

John Weston, local leader of Rich County, reports the following benefits from his dairy calf club. A moderately poor family, comprising seven children, two of whom were boys of club age, had never owned a cow, and milk was a luxury in their home. Through the efforts of Mr. Weston the boys were able to purchase calves for a dairy project. As a result of this, the father reports that to-day they have sufficient milk for the entire family, and they sell in addition 73 pounds per day.

The father further states, "The calf club has been of untold benefit to our whole family. Keep up the good work and accept my humble thanks."

All club members are taught the food value of milk through the health program. The foods project includes the many uses of milk in the family diet.

Through the sheep club project, 200 animals of choice breeding have been

purchased by club members in 23 communities. The club boys and girls now own 1,114 purebred and high-grade sheep. Through community shows and results secured from the club flocks sheepmen have become interested in the use of better rams and more careful breeding and culling for stronger animals and a higher wool production.

The average fleece weight from the 48 sheep owned by club members in Salt Lake and Garfield Counties was 16½ pounds while the average for the State was 8.8 pounds per fleece.

Marketing Beef Animals

When the livestock men of Duchesne County noted that the beef animals owned by the 4-H club boys were so fed that they sold as fat steers on the market the beef industry in Duchesne County changed from the selling of feeder cattle to one of placing fat animals on the market. Formerly the animals were sold as feeders and surplus hay was sold men who brought their flocks and herds to Duchesne County for the winter. The club project has proved that there is a greater income in marketing the finished cattle than in former practices.

Responsibility of Boys

Omni Winterton, 16, of Summit County, fifth-year club member, has become so efficient from his experiences in the feeding of 4-H club beef cattle that his father has given him the entire responsibility of feeding and conditioning the Winterton Brothers show herd for 1932. Claire Winterton, also a 4-H club boy, has shown his animals at many fairs in the West and has a long list of prizes and ribbons, many of which are blue and red.

As a part of the live-at-home program now being fostered by the Utah Extension Service, each boy and girl is re-

quired to do his or her part in raising an adequate home garden. The club member also assumes the responsibility of preserving and storing a definite amount of fruit, vegetables, and meat during the growing season.

Study of Foods

The foods project, which includes work for boys and girls, is based on a study of the day's food supply. This project is divided into planning, preparing, and serving breakfast, luncheon, and dinners with the idea of training members to cook appetizing, tasty food and at the same time to retain its food value.

Gardening methods taught to 4-H club members are becoming the adopted practices of adults in the communities in the growing of all gardens.

Table Etiquette

A study of table etiquette is included in each year's work. This becomes such an important factor in the home that the family adopts the etiquette which the club members must practice. Beginning with the second year every foods-club girl is required to can fruit, vegetables, and meat. Because the requirements include definite numbers of meals to be planned, prepared, and served at home, mothers have an opportunity to compare club methods with their own. Many of the parents report the use of a greater variety of vegetables and fruit, the consumption of more milk, and the elimination of personal idiosyncrasies because other members of the family have become interested in the family food supply.

At a recent conference of the better homes organization in Beaver County one foods club demonstrated the planning, preparing, and serving of family meals for two consecutive days. Dur-

ing a recent canning demonstration given by the nutrition specialist in this county 19 club members and 20 mothers attended. Many of the club girls assume the responsibility of canning all or part of the food needed by the family for the dormant season.

Afton Lewis, a fourth-year club girl of Utah County, has canned 1,600 quarts of fruits and vegetables during the past two years while her mother spends the summer on the wheat farm.

As a special feature of the demonstration train, which was run in May, 1932, 4-H girls gave a canning demonstration at each of the nine communities reached in Utah and Salt Lake Counties. It is easier to teach 4-H club members proper or new methods of canning than it is to teach adults, and when proper methods are given and improved practices demonstrated by club workers the improved methods are immediately adopted by the adults.

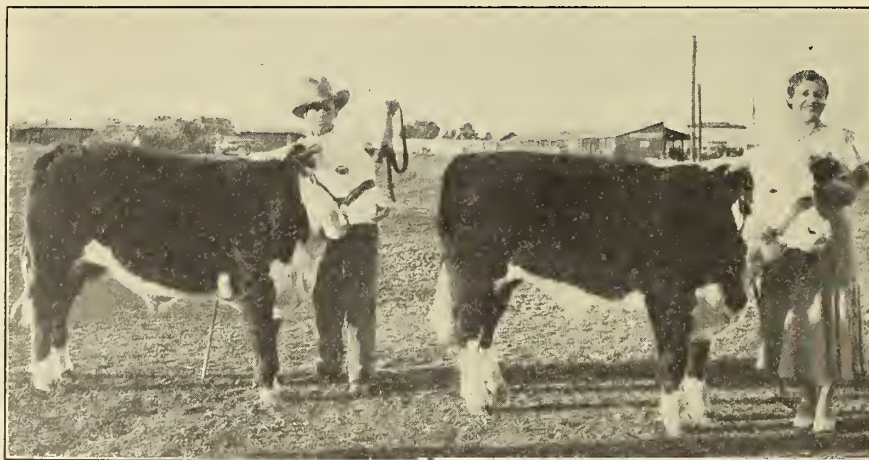
Clothing Budget

All clothing club members, together with their mothers, are required to begin by making an inventory of their wardrobes. The purpose of this inventory is to discern whether the girl needs the articles listed in the outline, what she has that might be remodeled, and whether she buys wisely from the standpoint of color, texture, style, fashion, and durability. The inventory gives the girl and her mother an opportunity to make a study of the girl's budget in relation to those of other members of the family.

Close Cooperation

Through the 4-H club organization in Utah it has been observed time and again that a closer cooperation has been developed between parents and their boys and girls. Club members have been trained in an appreciation of values, the science of wise spending, and in the desirable quality of showing consideration for others.

Many examples have come to the attention of the extension service in which home practices and farm practices have been entirely changed as the result of observation and demonstration of club projects in the regular program of the boy and girl of the home. It is always easier for the father and mother to see and appreciate what might be done when they see their own boy or girl accomplish it than if the idea comes as a suggestion from the agricultural agent or home agent.



Two 4-H club members of the Winterton family and their animals

Radio as a Factor in a State Home-Economics Program

CLARIBEL NYE

State Leader of Home Economics Extension, Oregon Extension Service

AN ADEQUATE State program in home economics is one which not only includes in its content all those applications of certain arts and sciences to home living, which we call home economics, but is so developed through various channels and by various methods and devices that its value is available to every home in the State. That this concept is held by home economists concerned with extension is assumed, but that any State or any county in any State has been able to realize an adequate program is probably not claimed. Radio is an additional direct route from college to homes.

Radio in education challenges one's imagination. It is neither to be scorned and considered an expression of a disintegrating, nerve-racking exploiting society, nor is it to be accepted as the greatest potential channel for guiding the thinking of the greatest number of families. We do not know what these hundreds of thousands of families are permitting the radio to do to them as individuals and to their success in home living. We can agree, however, that the facilities of radio are a challenge to those in the field of education who are concerned with guiding the changes of people in thinking and feeling and doing.

In Oregon the home-economics division of the extension service has responsibility for programs from Station KOAC totaling an hour and a half daily except Saturdays and Sundays.

County Programs

We have two groups of listeners—those who are cooperating upon an adult extension program under the leadership of the home demonstration agents and

specialists and those who can not have, or at least are not having, this motivation and guidance. Our programs, therefore, aim to enrich the county extension programs and also to stimulate the thinking of home makers who from the lack of choice or opportunity are not enrolled in projects directed by agents or special-

eral bulletins and the Aunt Sammy's Radio Recipes.

The half-hour afternoon programs are somewhat less chatty than the morning programs and assume a home situation where it is possible for the listener to give uninterrupted attention to the program for a longer period of time.

They are arranged with certain facts in mind. Many people can not cooperate on a meeting basis because of distance from centers, young children or aged people in the family, ill health, or lack of interest in group meetings in their communities. Others would like to form club groups. Some would like guidance in studying at home. We know that we can not organize and work in person or even through leaders with every group that might be formed

National 4-H Club Radio Program

Annual Theme: 4-H Club Work Has Educational Value

Saturday, April 1, 1230 to 130 p. m., Eastern Standard Time

Our 4-H Club Plans Ahead for the Year..... 4-H club negro boy.

Our 4-H Club Members Work Together..... 4-H club negro girl.

Teaching 4-H Club Members to Think for Themselves.....

J. B. Pierce, Field Agent, Negro Work, Extension Service, U. S. Department of Agriculture.

4-H Club Members Make Intelligent Farmers and Home Makers.....

T. M. Campbell, Field Agent, Negro Work, Extension Service, U. S. Department of Agriculture.

The National 4-H Music Achievement Test, featuring the theme "The World's Great Composers".....

United States Marine Band.

The Storm—From Overture to William

Tell..... Rossini.

Invitation to the Dance..... Weber.

The Lost Chord..... Sullivan.

None But the Weary Heart..... Tschaikowsky.

Valse Des Fleurs—From the Nutcracker Suite..... Tschaikowsky.

ists. In one radio series, Your Boys and Girls Growing Up, the content very definitely supplemented the local-leader series, Guiding the Developing Child.

Our broadcasts addressed directly to home makers are on the air from 10 to 11 a. m. and from 2.30 to 3 p. m. The morning program centers chiefly on housekeeping and aims to make household processes more meaningful, and therefore more interesting to the women as they go about the housekeeping tasks. Under the general title "The Home Economics Observer" the hour is divided into four units of 12 minutes each—tomorrow's meals, the hows and whys of cookery, food facts and fancies, and the magazine rack. The observer tells of bulletins and mimeographed circulars available. From December 1, 1930, to November 30, 1931, 6,065 bulletins and mimeographed circulars were distributed upon request. Of these 2,406 were Fed-

in every county within the radius reached by this 1,000-watt station. To meet these various situations, lectures and supplementary material for home-study lessons and radio-club programs are included on different afternoons of the week throughout the year from September to June.

One lecture series that offered no additional service material and invited no particular response was called Time Spending—Kitchen Changes. The first three lectures were announced as How Shall I Spend My Time? The Modern Woman's Dilemma, The Time Costs of Children, and Time Costs of Keeping the Family Clean. These were followed by nine interviews of one-half hour with home makers on the theme, The Home Maker and Her Kitchen. The interview type of program has brought favorable comment.

One home-study series, developed in the simplest possible way, was called

Your Money's Worth in Household Textiles. It included twelve 20-minute lectures given by members of the resident faculty of the school of home economics on the selection of towels, sheets, mattresses, blankets, quilts, bedspreads, and curtains. One lecture was given each week. A service sheet, containing samples of material and tips on selecting such textiles, was prepared for each two lectures. With little advertising 200 home makers enrolled for the series and each received a service sheet every two weeks. The person who gave the lecture had a service sheet in her hand during the broadcasts and suggested that those enrolled have before them their sheet with its samples of textiles as the lecturer pointed out the advantages and disadvantages of the materials.

One's imagination goes forward in considering the possibilities of the method in broadcasting material on the furnishing and arrangement of living rooms, kitchens, and bedrooms. Skeleton plans might be provided on which the listener could work during or following the lecture, these plans to be sent to the lecturer for comment. Again, this method might be used in radio programs on clothing design. Better than placing in the listener's hands an outline of the lecture is providing him before the broadcast with material which will stimulate him to apply in his own living the material given in the broadcasts.

Radio Clubs

Undoubtedly radio clubs can become an important part of a State program, particularly in a State that has a scattered population, where distances are great, funds limited, and the staff limited to a few persons.

Our Tuesday programs, called the Family Life Series, have for the past two years been developed entirely on a club basis. Last year 48 clubs met regularly on alternate Tuesday afternoons. An auditor reported the lectures which were given on the other Tuesdays. The club programs were prepared by the persons who gave the lectures and provided for a 2-hour meeting. Reports were mailed by the club secretary to the director of the home-economics programs. The meeting of the clubs began one-half hour before the broadcasts with a review of the last meeting by the recorder. This report was followed by reading a short extract from some authority on the subject of the day. After listening to a half-hour lecture the clubs turn off the radio and discuss the lecture, using guide questions that their leader has received two weeks before. In the club

series, Your Boys and Girls Growing Up, many questions came in on the report blanks. These two are typical: "Would like to know your opinion on how to build up self-confidence." "What steps should be taken to prevent a boy from teasing others by means of snatching caps and books and throwing them away?"

Popular Publications

In order that all printed and mimeographed material on home economics available from the Oregon State Agricultural College and the United States Department of Agriculture may be called to the attention of Oregon home makers who listen to the programs, we print from time to time in small type on cheap paper, lists of this material classified according to subjects. It has many uses. Some letters do not make clear what is

wanted. Sometimes a listener does not get clearly the name and number of the bulletin or mimeographed circular announced, or a young home maker writes that she knows nothing about housekeeping but wants helpful material. In such cases we send the list and invite the writers to check those they wish. The enthusiastic response to many of the Federal publications, notably bulletins on curtains, stain removal from fabrics, and canning, indicates the value of these publications to home makers, many of whom live far from cities, can not afford magazines, and have no other sources of reliable help.

Although full measure of the part of radio in education can only be estimated, none can doubt that in innumerable instances it serves as a direct and effective communication to Oregon home makers from trained home economists at the State college.

Early Haying Pays



TO BEGIN HAYING the day after the Fourth of July is an old New England custom which New Hampshire farmers abandoned in 1930. They are now getting into the hay fields approximately 10 days earlier as a result of a campaign for earlier cutting by the New Hampshire Extension Service.

Behind this project are three years of research, showing that hay cut June 20 is twice as valuable for the dairy cow as that harvested July 20. It is estimated that this earlier harvest increases the value of New Hampshire's home-grown cow feed by \$400,000.

"This program for early haying has been adopted by more farmers than any similar effort ever launched in soils and

crops in New Hampshire," said Ford S. Prince, extension agronomist. The campaign was conducted by means of special meetings, circular letters, posters, newspaper publicity, and radio broadcasts.

Charles T. Rossiter of Sullivan County, it was discovered, had been haying early for 30 years. He was immediately put on the radio and much publicity was given to what he said.

Although it was a minor part of a general campaign for more home-grown feed, early haying was again emphasized in 1932. The main emphasis, however, was on the production of annual legumes which proved unusually satisfactory despite the driest summer in the memory of even the oldest dairymen.

The National Live Stock Marketing Association Makes Progress

CHARLES A. EWING

President, National Live Stock Marketing Association

EVERYONE interested in agriculture should pause at the threshold of 1933 for a retrospect of the efforts that have been made since the beginning of the century to advance this enterprise to a more favorable and prosperous condition. It is folly, indeed, to go blindly forward without taking into account the results of our past efforts.

In 1900 we were very much engrossed in the science of agriculture and the problem of soil fertility and production, to the exclusion of practically all other agricultural problems. That year will always be a remarkable year for the new and rapidly spreading interests in agricultural education, as was evidenced by the mounting attendance in our colleges of agriculture.

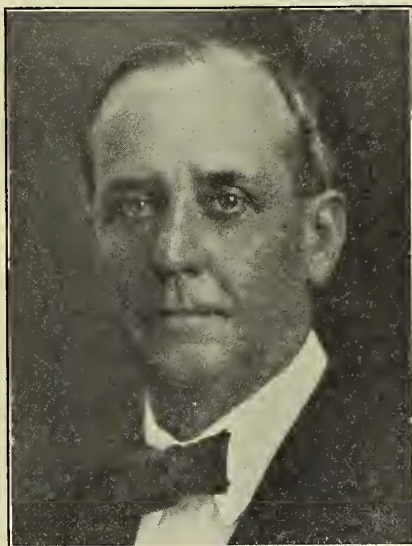
In 1910 we introduced in these colleges the subject of farm management, which sought to correlate the activities of the operations on various farms into more efficient units, and this also gained rapid favor. In 1920 we began to discuss agricultural economics, and this also has grown in favor, but, in spite of our achievements in mastering the problems of production and efficient farming, the last third of the period has been the most unfortunate and distressing that agriculture has ever known. This condition is due to the lack of adjustment of the relationship of agriculture to other industry, to the Government, to foreign trade, and to its lack of equality in matters of taxation and protection. Probably the most important factor in this depression has been due to our system of currency and banking and to a failure on our part to efficiently organize our marketing, whereby we could, through better regulation of supply to demand, control a sufficient share of our products to make possible a better distribution in accordance with demands. We have been unable to stabilize our markets or obtain for our products a price that gave us a reasonable profit.

Present Problem

To-day our problem is not one of production. We are not interested in making two blades of grass where one grew before, but we are interested in finding a market for the first blade; and this third of a century has revealed the weakness of the old policy of individualism so inherent in all the pioneer farm people of the country. Individually, with the changed conditions of to-day, we can not cope with the problems that most

affect our business, and this gives rise to the need for effective national organizations through which we can unite our efforts for dealing with these questions.

The purpose of the National Live Stock program can be paraphrased with the preamble of the agricultural marketing act itself. It is to develop a national association owned and controlled by livestock men throughout the country who will cooperate with and support it for the more effective marketing of livestock in domestic and foreign commerce, and to bring about economies and efficiencies



Charles A. Ewing

that will secure for the producer a larger share of the dollar which the consumer pays for his product. It should be an instrumentality for dealing with these questions of relationship that will enable the stockmen to place their business on a basis of better economic parity with other industry. Such an organization should be vigilant to see that we get a fair share of the fruits of protection and relief from carrying an excessive burden of taxation. These are matters which individually none of us can accomplish, nor can our local marketing associations do little more with them; but by uniting in a common effort they are all possible of achievement.

Accomplishments

The National Live Stock Marketing Association was organized in May, 1930, with 14 members; and in spite of the adverse conditions which have prevailed since, its membership now has increased to 24. These members are marketing agencies located on the leading livestock

markets of the country, through which nearly 300,000 livestock producers who are cooperatively minded send their stock to market. Over 100,000 decks of cattle, hogs, and sheep are handled by these agencies, and their value exceeds \$100,000,000 of business annually. Our growth in volume the past year was about 20 per cent, and the business affairs of the National are guided by a board of 22 directors. Among our membership, besides the terminal agencies, are direct marketing agencies and State marketing associations, the former sending stock direct from producer to the packer, either on or off the terminal market, the latter State associations rendering a valuable service in the assembling, assorting, and directing of shipments either to the terminal markets or direct to packers, as conditions and prices dictate.

Subsidiaries of the National

The National Feeder & Finance Corporation is an important subsidiary of the National Live Stock Marketing Association, and since its organization has established six regional credit corporations, which are extending credit to livestock men throughout the country. These regional credit corporations are located at Chicago, Fort Worth, Salt Lake City, Oklahoma City, Denver, and San Francisco, and more than \$28,000,000 has been lent to stockmen in 28 States to assist them in carrying on their operations. During this period of closing banks no other source of credit was available than that offered through these regional credit corporations, and it is unnecessary here to dwell on the importance of a service of this character in times such as these.

The National Live Stock Publishing Association is another subsidiary which carries the story of the National and its activities to the patron members throughout the country. It has a large circulation and is an important factor in keeping the producer informed of the activities of this organization.

The research department is another important work carried on by the National Association, and renders a valuable service to a rapidly increasing number of stockmen by keeping them advised of market trends, supplies, and conditions. It is under the management of a highly trained director, and its purpose is to take some of the guesswork out of the livestock business. In matters of transportation, legislation, public relations,

(Continued on page 32)

THE PROOF OF THE PUDDING



Improved Wheat Profits

Roy Clark of Henleyville, pioneer grain grower of Tehama County, Calif., operating 600 acres planted to barley and wheat, increased his income by \$2,160 over the past 6 years. "In 1924," says Clark, "the agricultural extension service of the county started a 10-acre test plot of Federation wheat on my farm. This variety was bred by the agronomy division at the University Farm, Davis. Up to that time I had been growing such varieties as Baart, Club, and Bluestem.

"Yields from the test plot of Federation wheat demonstrated a larger production per acre, averaging at least one additional sack. Computing my gain on my 300 acres over these 6 years at the average price of \$1 per 100 pounds, with 120 pounds to the sack, I stand exactly \$2,160 to the good."

Waste Products Yield Income

The conservation and sale of \$133.60 worth of tomatoes which before this year had been allowed to go to waste, together with an abundant supply of canned tomatoes and tomato juice kept for home use, was how Mrs. E. L. Berryhill of Learned, Hinds County, Miss., effected savings in her home and helped add to the family cash income during the past year. Mrs. Berryhill says, "The tomatoes I used were ones left in the patch after my husband had finished shipping, and which heretofore had always been given away or left in the field to decay. This year at the suggestion of Mrs. Margaret Cresswell, our home demonstration agent, I turned these tomatoes into a profit.

"The tomatoes were culled in the field, only those suitable for canning and making juice being picked. They were then brought from the field to the kitchen in

bushel carriers placed on a homemade sled and drawn by an old slow mule driven by two negro boys aged 5 and 8 years.

Next, we sorted them, using the ones of proper size and color for canning whole, and the others for making juice. In extracting the juice I used a homemade press designed and constructed by my husband, which enabled me to can more than I could have by using a small hand sieve. The juice was evaporated in a large granite kettle on a wood range.

With the help of the entire family, three daughters being canning club members, we canned 30 cases of tomatoes, selling 20 cases and keeping 10 for our home use. We canned and sold 70 cases of juice. Our total sales were \$133.60. The cost of cans was \$54.50 and labels cost \$10, leaving us a profit for our efforts of \$69.10, from a product that heretofore had been entirely wasted."

Budgets the Baby's Food

Mrs. A. T. Morris of Crittenden County, Ark., provides a supply of canned foods for her baby. This is what she says about it.

"Using a canning budget had proved so satisfactory in my experience that when Mrs. Dorothy Morris, our home demonstration agent, suggested to me that I have a canning budget for my little daughter who is in her second year, I was delighted to try it.

"Our county raises asparagus and ships quantities of it so that it is easy for me to get at no cost what I need of the tips that are too small to ship, to use for purée. All the other vegetables required I raise in sufficient quantities in my own garden to can both for my baby and the rest of the family. Those needed for the baby's purées come in at different

seasons so that at no time do I have to rush to get the canning done.

"We live on a dirt road in the interior of a plantation, and in the winter it is impossible much of the time for us to get in and out to a market to get fresh vegetables for purées for the baby. I tried buying vegetables already canned but this was too expensive and I could not always have them. When I was fortunate enough to get the fresh vegetables in winter I had to get small quantities for such vegetables were very expensive. Then I had to spend hours cooking very small amounts to get them ready for the baby. Even if I had large quantities of the raw products I could not fix much at one time because I knew they would not keep long. Even with all this effort, I knew that my baby was being neglected in not having the right food.

"Now I have a different story to tell. It can rain, the roads can get bad so that we can not get out for weeks, vegetables can be scarce or very high priced, and I can be rushed with my work, yet I still have the healthiest, finest baby with never a worry for when her meal time comes I can go to the pantry and get the vegetables she needs. I would never try to raise a baby again without canning for it according to a budget."

Cash From Hogs and Tobacco

Here's proof of the pudding furnished by two of South Carolina's county extension agents. Agent S. W. Epps of Dillon County gives an item about hogs: "E. A. Peterkin, Hamer, grazed 20 hogs on 2 acres of Biloxi soybeans. These hogs made an average daily gain of 1.79 pounds at a cost of \$2.52 per hundred pounds gain, a return of 86 cents per bushel for corn."

An item about growing tobacco is furnished by T. M. Evans of Horry County. "Otho L. Cox, of Loris, in a 4-acre tobacco demonstration produced 5,178 pounds of tobacco which sold for \$876.70, or a per acre value of \$219.17. After paying fertilizer cost and harvesting expenses he had a net profit of \$134.85 per acre."

National Live Stock Marketing Association Makes Progress

(Continued from page 31)

and buying of meat, the National keeps a vigilant eye and has been able to render a large measure of service.

Most of our activities, however, have been of necessity devoted to the setting up of this great machine to do this work and to find the men who are qualified to

run the various departments. Henceforth it is the belief that there will be more opportunity to devote to some of these other lines of service which are beneficial to the interest of the producer, and the interest and cooperation of those engaged in agricultural extension work is of the greatest value to this undertaking. We need their interest and support. The agricultural problems which will occupy our attention in the future are those which extend beyond the confines of the fence, and it is going to be

necessary for all of us interested in the success of this great industry to lay emphasis upon those things which concern the farmer as a citizen rather than the questions of production and management of the farm itself. It is his relation—economic, political, and financial—to the other forces around him with which he must learn to deal, and in this work no other force can be more helpful or valuable than that which the extension departments and the colleges of agriculture can exert.

· ACROSS · THE · EDITOR'S · DESK ·

Fewer, Better Farmers

IT's cold comfort that Russell Lord gives to the back-to-the-farm-for-a-living enthusiast in his contribution to the February issue of Forum. This is what he says:

"The one sound thing, economically, which can be said for this back-to-farming movement is that it may somewhat hasten the interweaving of our agricultural and industrial structure, and shorten distribution costs. Apart from that, there is no economic health in it. We need fewer, better farmers, rather than more, less skillful ones. Agriculture, which used to be a refuge from business, has become, perforce, in itself a vexed and intricate business, usually requiring a lifetime of training and infinite patience for even moderate success. Given this training, patience, and good land, a family will not starve or suffer; but the enforced refugee, lacking one or all of these requirements and possessed of elaborate urban wants and habits, will find himself more lost, trapped, up against it, in all likelihood, than he ever was in town." Lord concludes: "I believe that we shall resettle America, and make better use of our 1,906,000,000 acres; but less of all that land, rather than more, will be farmed; and fewer of us as time goes on will be farmers."

Mother Walker

ON MARCH 10, 1933, Dora Dee Walker of South Carolina, affectionately known as "Mother" Walker to thousands of farm women and girls in her State, completes 22 years of strenuous, fruitful, and, I truly believe, joyous service in the cause of better and happier farm homes. Her story is not only that of a faithful and efficient extension worker. It is Mother Walker, the woman, living life to the fullest, knowing great sorrow and seeing great happiness, that to us, who have been privileged to know her, is the real marvel and inspiration.

Left a widow with four children when 30 years old, Mother Walker supported her children and herself by teaching. To help ends meet she grew fruits and vegetables and each summer canned 5,000 to 6,000 quarts of them which she sold to stores in near-by towns. Her oldest son, Ward, was killed while serving as an Army officer in the Philippines. Her other two sons and her beloved daughter, Louise, each were taken from her in tragic ways in the years that followed, leaving to her, it would seem, little of hope or happiness. She writes, "When I go home, I fail to hear the reverberations of laughter as of yore, when the happiest of families was assembled there, but I make myself happy planning and doing for others."

That she truly does. Last year, there were 23,000 women and girls in South Carolina who were better, happier, and more provident home makers because of her vital influence. More than 12,000 homes, the grounds of 500 churches and 900 miles of South Carolina's highways are more beautiful because of Mother Walker's carrying the gospel of beauty and restful

surroundings to the far ends of her State. And, in each of 30 counties to-day because of her untiring effort there is established a model community center to provide for needed social and recreational activities.

Of extension work, Mother Walker says, "I love extension work better than anything I have ever done, for it has given me the opportunity to help thousands not only along the pathway of a practical life but to surmount to a higher plane of living." Has she made the most of this opportunity? A thousand times, "Yes!"

Mother Walker, we salute you!

A Big Terracing Year

OVER one million acres of land were terraced in Texas last year. This brings the total area in the State terraced as a result of extension effort up to six million acres. This area M. R. Bentley, State extension engineer, estimates as being 24 per cent of the entire area needing such protection. I think you will agree that this is making real progress. It's a striking example of the development of a state-wide movement from modest beginnings. Here and there over his far-flung State for 15 years, Mr. Bentley has gone his quiet but determined way. Year by year, the beneficial results of terracing have become gradually more apparent to all. More agents gave the effort their active support. Finally the idea that had been demonstrated patiently again and again, under every condition and in every locality, found practical application on a million acres of land in one year. Does this example help answer the question "What does extension work accomplish?" I rather think so.

Everybody's Business

PRESIDENT WILLIAM GREEN of the American Federation of Labor outlines in the February issue of the Nation's Business the program of labor for 1933. It's a remarkably clear and forceful piece of writing. Reading it, I was struck with how little most of us in agriculture know of the group aims and programs, let us say, of the bankers, of business men in various fields, of the leaders of nonagricultural industries, and of the men and women of the professions—doctors, lawyers, teachers, engineers, etc. Probably most of them know as little about the aims and program for agriculture as we do about what their aims and programs are.

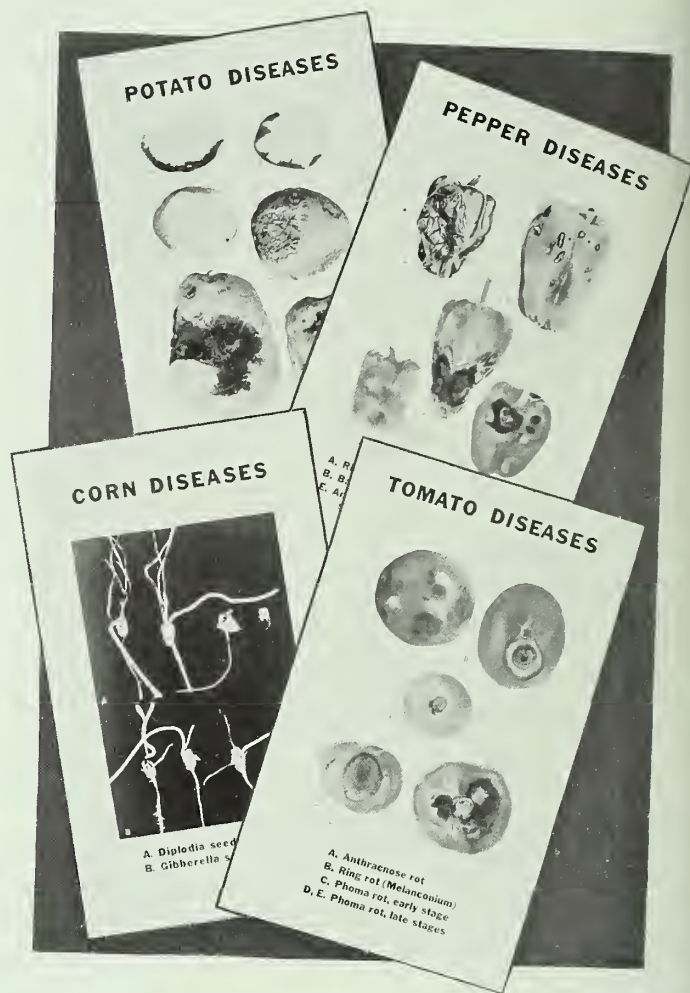
This brings to my mind the way in which Director Warburton closed his discussion of the extension program for 1933 in the January issue of the Review. He said, "As we go into new fields of activity, it becomes even more important that the public understand why certain policies are adopted and certain things are done. To this end I trust that every extension agent during the coming year will make the fullest possible use of the opportunities offered by local newspapers, the radio, and meetings of business men and civic groups to present the farm situation in his county and to enlist public support for the program adopted." R. B.

PLANT DISEASES SHOWN IN NATURAL COLORS

VALUABLE VISUAL AIDS IN RECOGNIZING THE DIFFERENT DECAYS, SPOTS, AND OTHER DEFECTS OF MARKET VEGETABLES have been prepared by the Bureau of Plant Industry, United States Department of Agriculture, in a series of posters in full color. ~ ~ ~ ~ ~

These posters point the way to more profitable yields of better quality products, and will be found especially helpful to extension workers and teachers in agriculture and biology, as well as to shippers and buyers; to market inspectors and cooperative marketing associations; and to railway claims departments, express agencies, and storage companies. ~ ~ ~ ~ ~

They are printed on 4-ply cardboard, 7¼ by 12 inches in size. The price is 5 cents each with a 25 per cent reduction for lots of 100 or more. The following 26 posters are now available. ~ ~ ~ ~ ~



- DISEASES AND INJURIES OF POTATO TUBERS ~ Plant Disease Posters 1 to 13
 DISEASES OF CORN SEEDLINGS AS THEY APPEAR ON THE GERMINATOR ~
 Plant Disease Posters 14 and 15
 DISEASES OF TOMATO FRUITS ~ Plant Disease Posters 16 to 24
 DISEASES OF PEPPER FRUITS ~ Plant Disease Poster 25
 FRUIT ROT OF EGGPLANT ~ Plant Disease Poster 26

Order by number, as U. S. D. A. Plant Disease Poster No. 1, etc. Send remittance by check or money order payable to the Superintendent of Documents, Government Printing Office, Washington, D. C. Postage stamps are not acceptable, and currency may be sent at sender's risk. ~ ~ ~ ~ ~
